```
1: #!/usr/local/bin/perl -w
 2: # $Id: edfile.perl,v 1.1 2010-10-05 15:49:44-07 - - $
 3: # See the listedit utility man page for specifications.
 5: use strict;
 6: use warnings;
 7: use Getopt::Std;
 8: use IO::Handle;
 9:
10: $0 = s|^(.*/)?([^/]+)/*$|$2|;
11: my $exit_status = 0;
12: END{ exit $exit_status; }
13: sub note(@){ print STDERR "$0: @_"; };
14: $SIG{'__WARN__'} = sub{ note @_; $exit_status = 1; };
15: $SIG{'__DIE__'} = sub{ warn @_; exit; };
16:
17: autoflush STDOUT 1;
18: autoflush STDERR 1;
19: my ($dotline, @buffer);
20:
21: sub readfile($) {
22:
       my ($filename) = @_;
23:
       warn "$filename: $!\n" and return unless open my $file, "<$filename";
24:
       my @input = <$file>;
25:
       close $file;
26:
       printf "%d lines read from $filename\n", scalar @input;
27:
       splice @buffer, $dotline + 1, 0, @input;
28:
       $dotline += @input;
29: };
30:
31: sub writefile($) {
32:
       my ($filename) = @_;
33:
       warn "$filename: $!\n" and return unless open my $file, ">$filename";
34:
       print $file @buffer;
35:
       close $file;
36:
       $dotline = $#buffer;
37:
       printf "%d lines written to $filename\n", scalar @buffer;
38: };
39:
40: sub printcurr() {
       print "no lines in file\n" and return unless $dotline >= 0;
42:
       printf "%6d %s", $dotline, $buffer[$dotline]
43: };
44:
45: my %switch = (
46:
       #ch => [hasopnd, printcurr, sub]
47:
       '#' => [1, 0, sub {}],
       '$' => [0, 1, sub {\$dotline = \$\#buffer}],
48:
       '*' \Rightarrow [0, 0, sub {\$dotline = \$\_, printcurr for 0..\$\#buffer}],
49:
       '.' \Rightarrow [0, 1, sub {}),
50:
       '0' \Rightarrow [0, 1, sub {\$dotline = 0}],
51:
       '<' => [0, 1, sub {--$dotline}],
52:
       '>' => [0, 1, sub {++$dotline}],
53:
       'a' \Rightarrow [1, 1, sub \{splice @buffer, ++$dotline, 0, "$_[0]\n"\}],
54:
       'd' => [0, 1, sub {splice @buffer, $dotline, 1 if @buffer}],
55:
       'i' \Rightarrow [1, 1, sub \{if (\$dotline < 0) \{@buffer = "\$_[0]\n"\}\}
56:
57:
                           else {splice @buffer, $dotline, 0, \$[0]\n"}],
58:
       'r' \Rightarrow [1, 0, sub \{readfile $\_[0]\}],
59:
       'w' => [1, 0, sub {writefile $_[0]}],
60:
61: );
62:
63: my $wantecho = 1 if @ARGV and $ARGV[0] eq "-e" and shift;
64: for my $filename (@ARGV) {
```

```
open FILE, "<$filename" or warn "$filename: $!\n" and next;
65:
66:
       push @buffer, <FILE>;
67:
       close FILE;
68: }
69: $dotline = $#buffer;
70: printf "%d lines read\n", scalar @buffer if @buffer;
71:
72: for(;;) {
       print "$0: ";
73:
74:
       last unless defined (my $line = <STDIN>);
75:
       print $line if $wantecho;
76:
       chomp $line;
77:
       next if \frac{s}{m} = m/^s;
78:
       my (\$key, \$operand) = \$line = m/(.)(.*)/;
79:
       my (\$hasopnd, \$printcurr, \$sub) = @\{\$switch\{\$key\} \mid | []\};
80:
       warn "invalid command: $line\n" and next
81:
            unless length $key and defined $sub
82:
               and ($hasopnd or (length $operand) == 0);
83:
       $sub->($operand);
       $dotline = 0 if $dotline < 0;</pre>
84:
85:
       $dotline = $#buffer if $dotline > $#buffer;
86:
       printcurr if $printcurr;
87: };
88:
89: print "^D" if $wantecho;
90: print "\n";
91:
```

## \$cmps012b-wm/Assignments/asg2j-edfile-dllist/test/edscript

```
1
```

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```
1: # $Id: edscript,v 1.1 2010-10-05 15:49:44-07 - - $
2: rtest.in
3: *
4: aanother line
5: ianother line
6: *
7: <
8: <
9: d
10: <
11: d
12: *
13: wscript.out</pre>
```

## \$cmps012b-wm/Assignments/asg2j-edfile-dllist/test/

mk

```
1: #!/bin/sh -x

2: # $Id: mk,v 1.2 2010-10-05 15:50:51-07 - - $

3: FILES="edfile.perl edscript mk test.in"

4: cid + $FILES

5: edfile.perl <edscript 2>&1 | tee edscript.log

6: mkpspdf ../asg2j-edfile.test.ps $FILES *.out *.log
```

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## \$cmps012b-wm/Assignments/asg2j-edfile-dllist/test/ test.in

- 1: # \$Id: test.in,v 1.1 2010-10-05 15:49:44-07 - \$
- 2: This is an input test file.
- 3: It contains a few lines of data.
- 4: It will be written out again.
- 5: Look at the typescript logs for an example.

## \$cmps012b-wm/Assignments/asg2j-edfile-dllist/test/ script.out

- 1: # \$Id: test.in,v 1.1 2010-10-05 15:49:44-07 - \$
- 2: This is an input test file.
- 3: It contains a few lines of data.
- 4: another line
- 5: another line

```
1: edfile.perl: edfile.perl: 5 lines read from test.in
 2: edfile.perl:
                         0 # $Id: test.in,v 1.1 2010-10-05 15:49:44-07 - - $
 3:
          1 This is an input test file.
          2 It contains a few lines of data.
 5:
          3 It will be written out again.
 6:
          4 Look at the typescript logs for an example.
                      5 another line
 7: edfile.perl:
                         5 another line
 8: edfile.perl:
 9: edfile.perl:
                       0 # $Id: test.in,v 1.1 2010-10-05 15:49:44-07 - - $
10:
          1 This is an input test file.
11:
          2 It contains a few lines of data.
12:
          3 It will be written out again.
13:
          4 Look at the typescript logs for an example.
14:
          5 another line
15:
          6 another line
16: edfile.perl: 5 another line
17: edfile.perl: 4 Look at the typescript logs for an example.
18: edfile.perl: 4 another line
19: edfile.perl: 3 It will be written out again.
20: edfile.perl: 3 another line
20: edfile.per1: 3 another line
21: edfile.per1: 0 # $Id: test.in,v 1.1 2010-10-05 15:49:44-07 - - $
          1 This is an input test file.
2 It contains a few lines of data.
23:
24:
          3 another line
25:
          4 another line
26: edfile.perl: 5 lines written to script.out
27: edfile.perl:
```