

```
1: #!/usr/bin/perl
2: # $Id: pfmt.perl,v 1.1 2013-09-24 14:41:47-07 - - $
3: use strict;
4: use warnings;
5:
6: $0 =~ s|^.*\/||;
7: my $exit_status = 0;
8: END {exit $exit_status}
9: sub note(@) {print STDERR "@_";
10: $SIG{'__WARN__'} = sub {note @_; $exit_status = 1};
11: $SIG{'__DIE__'} = sub {warn @_; exit};
12:
13: my $linelen = 65;
14: if (@ARGV and $ARGV[0] =~ m/^-(.+)/) {
15:     $linelen = $1;
16:     die "Usage: $0 [-width] [filename...]\n" if $linelen =~ m\/D/;
17:     shift @ARGV
18: }
19:
20: sub print_paragraph (@) {
21:     my (@words) = @_;
22:     print "\n";
23:     my $char_count = 0;
24:     for my $word (@words) {
25:         if ($char_count == 0) {
26:             print $word;
27:             $char_count = length $word;
28:         }else {
29:             $char_count += 1 + length $word;
30:             if ($char_count > $linelen) {
31:                 print "\n", $word;
32:                 $char_count = length $word;
33:             }else {
34:                 print " ", $word;
35:             }
36:         }
37:     }
38:     print "\n" if $char_count > 0;
39: }
40:
41: push @ARGV, "-" unless @ARGV;
42: for my $filename (@ARGV) {
43:     open my $file, "<$filename" or warn "$0: $filename: $!\n" and next;
44:     my @output_words;
45:     for (;;) {
46:         my $input_line = <$file>;
47:         last unless defined $input_line;
48:         my @input_words = split " ", $input_line;
49:         if (@input_words) {
50:             push @output_words, @input_words;
51:         }else {
52:             print_paragraph @output_words if @output_words;
53:             @output_words = ();
54:         }
55:     }
56:     print_paragraph @output_words;
57:     close $file;
58: }
```

09/24/13
14:41:47

\$cmps012b-wm/Assignments/asg1j-jfmt-filesargs/misc/
pfmt.perl

2/2

59:

```
1: #!/bin/sh
2: # $Id: mkp,v 1.1 2012-01-05 19:16:54-08 - - $
3: ./pfmt.perl ../.score/*.dat >pfmt.output1
4: ./pfmt.perl -40 *.java >pfmt.output2
5: mkpspdf pfmt.listing.ps pfmt.perl $0 pfmt.output*
```

```
1:
2: This is test file #1. This is test file #1. This is test file #1.
3: This is test file #1. This is test file #1. This is test file #1.
4: This is test file #1. This is test file #1.
5:
6: It is very regular and is used to check to see if word wrap
7: works. It is very regular and is used to check to see if word
8: wrap works. It is very regular and is used to check to see if
9: word wrap works. It is very regular and is used to check to see
10: if word wrap works. It is very regular and is used to check to
11: see if word wrap works. It is very regular and is used to check
12: to see if word wrap works. It is very regular and is used to
13: check to see if word wrap works. It is very regular and is used
14: to check to see if word wrap works.
15:
16: Does it work with a one line paragraph?
17:
18: $Id: input1.dat,v 1.1 2013-09-24 14:22:42-07 - - $
19:
20:
21: This is another file of test data for test number two. Some lines
22: are short. Other lines are very long lines, exceeding even the
23: line length that checksource.perl likes to see and will complain
24: about.
25:
26: Are multiple input blank lines squeezed to a single output blank
27: line?
28:
29: What happens if there is only one word per line.
30:
31: $Id: input2.dat,v 1.1 2013-09-24 14:22:42-07 - - $
32:
33: This paragraph is indented by a tab. Are tabs deleted at the
34: front of the line?
35:
36: What about spaces? Do they work like pfmt.perl?
37:
38: a long word should be on a line by itself
39: sometimesthereisaverylongwordwhichpokesoutsidethenormalmarginssometimesth
ereisaverylongwordwhichpokesoutsidethenormalmargin
40: if the word exceeds the margin
41:
42: This paragraph has lots of tabs on input. Tabs should be replaced
43: by spaces on output.
44:
45: This paragraph has lots of leading spaces and trailing tabs on
46: input.
47:
48: $Id: input3.dat,v 1.1 2013-09-24 14:22:42-07 - - $
```

```
1:
2: // $Id: jarname.java,v 1.2 2013-09-24
3: 14:41:30-07 - - $ // // // NAME //
4: jarname - Print out the name of the
5: current jar file. // // DESCRIPTION //
6: Makes use of the fact that the
7: java.class.path, when Java // is run
8: from a jar, is the name of the jar. //
9:
10: import static java.lang.System.*;
11:
12: class jarname { public static void main
13: (String[] args) { String jarpath =
14: getProperty ("java.class.path");
15: out.printf ("jarpath = \"%s\\\"%n",
16: jarpath); int lastslash =
17: jarpath.lastIndexOf ('/'); String
18: jarbase = lastslash < 0 ? jarpath :
19: jarpath.substring (lastslash + 1);
20: out.printf ("jarbase = \"%s\\\"%n",
21: jarbase); } }
22:
23: //TEST// ./jarname >jartest.out //TEST//
24: mkpspdf jarname.ps jarname.java*
25: jartest*.out
26:
27:
28: // $Id: jcat.java,v 1.2 2013-09-24
29: 14:41:31-07 - - $ // // // SYNOPSIS // jcat
30: [filename...] // // DESCRIPTION // The
31: jcat utility functions like cat(1) and
32: copies the contents // of all files to
33: the standard output, with error messages
34: to // the standard error. // // EXIT
35: STATUS // 0 if no errors were detected.
36: // 1 if errors were detected and
37: messages printed. //
38:
39: import java.io.*; import
40: java.util.Scanner; import static
41: java.lang.System.*;
42:
43: class jcat { // Static variables keeping
44: the general status of the program.
45: public static final String JARNAME =
46: get_jarname (); public static final int
47: EXIT_SUCCESS = 0; public static final
48: int EXIT_FAILURE = 1; public static int
49: exit_status = EXIT_SUCCESS;
50:
51: // A basename is the final component of
52: a pathname. // If a java program is run
53: from a jar, the classpath is the //
54: pathname of the jar. static String
55: get_jarname () { String jarpath =
56: getProperty ("java.class.path"); int
57: lastslash = jarpath.lastIndexOf ('/');
58: if (lastslash < 0) return jarpath;
```

```
59: return jarpath.substring (lastslash +
60: 1); }
61:
62: // Copies a single opened file to
63: stdout. static void copylines (Scanner
64: infile) { // Read each line from the
65: opened file, one after the other. //
66: Stop the loop at end of file. while
67: (infile.hasNextLine ()) { String line =
68: infile.nextLine (); out.printf ("%s\n",
69: line); } }
70:
71: // Open input file and copy contents to
72: stdout. static void catfile (String
73: filename) { if (filename.equals ("-")) {
74: copylines (new Scanner (System.in));
75: }else { try { Scanner infile = new
76: Scanner (new File (filename)); copylines
77: (infile); infile.close (); }catch
78: (IOException error) { exit_status =
79: EXIT_FAILURE; err.printf ("%s: %s\n",
80: JARNAME, error.getMessage ()); } } }
81:
82: // Main function scans arguments and
83: opens/closes files. public static void
84: main (String[] args) { if (args.length
85: == 0) { // No files specified on the
86: command line. catfile ("-"); }else { //
87: Iterate over each filename given on the
88: command line. for (int argi = 0; argi <
89: args.length; ++argi) { catfile
90: (args[argi]); } } exit (exit_status); }
91:
92: }
93:
94: //TEST// mkpspdf jcat.ps jcat.java
95:
96:
97: // $Id: parseint.java,v 1.2 2013-09-24
98: 14:41:33-07 - - $
99:
100: // // Illustrate try-catch convert args
101: to integers. // Iterate over each
102: element of args and attempt to convert
103: it to // an integer. If it succeeds,
104: print the integer. If not, catch // the
105: error and print an error message. //
106:
107: import static java.lang.System.*;
108:
109: class parseint { public static void main
110: (String[] args) { for (int argi = 0;
111: argi < args.length; ++argi) { String arg
112: = args[argi]; out.printf ("args[%d] =
113: \"%s\\\": ", argi, arg); try { int value =
114: Integer.parseInt (arg); out.printf ("is
115: int %d\n", value); }catch
116: (NumberFormatException error) {
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```
117: out.printf ("NumberFormatException:
118: %s%n", error.getMessage()); } } } }
119:
120: //TEST// ./parseint 214748 hello -33 ''
121: 987 >parsetest.out //TEST// mkpspdf
122: parseint.ps parseint.java parsetest.out
123:
```