

```
1: // $Id: catbychar.c,v 1.5 2014-01-28 17:59:24-08 - - $
2:
3: //
4: // NAME
5: //      catbychar - example of simple cat to display files
6: //
7: // SYNOPSIS
8: //      catbychar [filename...]
9: //
10: // DESCRIPTION
11: //      Uses fgetc(3) to read bytes from files.
12: //      If no filenames are specified, reads stdin.
13: //
14:
15: #include <errno.h>
16: #include <libgen.h>
17: #include <stdio.h>
18: #include <stdlib.h>
19: #include <string.h>
20:
21: #define STDIN_NAME "-"
22: char *program_name = NULL;
23: int exit_status = EXIT_SUCCESS;
24:
25: void catbychar (FILE *input, char *filename) {
26:     printf ("FILE %s:\n", filename);
27:     for (;;) {
28:         int byte = fgetc (input);
29:         if (byte == EOF) break;
30:         putchar (byte);
31:     }
32: }
33:
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34:
35: int main (int argc, char **argv) {
36:     program_name = basename (argv[0]);
37:     if (argc == 1) {
38:         catbychar (stdin, STDIN_NAME);
39:     } else {
40:         for (int argi = 1; argi < argc; ++argi) {
41:             char *filename = argv[argi];
42:             if (strcmp (filename, STDIN_NAME) == 0) {
43:                 catbychar (stdin, STDIN_NAME);
44:             } else {
45:                 FILE *input = fopen (filename, "r");
46:                 if (input != NULL) {
47:                     catbychar (input, filename);
48:                     fclose (input);
49:                 } else {
50:                     exit_status = EXIT_FAILURE;
51:                     fflush (NULL);
52:                     fprintf (stderr, "%s: %s: %s\n", program_name,
53:                             filename, strerror (errno));
54:                     fflush (NULL);
55:                 }
56:             }
57:         }
58:     }
59:     return exit_status;
60: }
61:
62: //TEST// ls -bgoa | catbychar >catbychar.out
63: //TEST// mkpspdf catbychar.ps catbychar.c* catbychar.out*
64:
```

[illegible]

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1: FILE -:
2: total 379
3: drwx-----. 3 2048 Jan 12 17:31 .
4: drwx-----. 6 2048 Jan 12 17:30 ..
5: -rw-----. 1 575 Jan 12 17:31 HEADER.html
6: drwx-----. 2 2048 Jan 12 17:31 RCS
7: -rw-----. 1 108 Jan 13 2015 cal.1752.09
8: -rw-----. 1 136 Jan 13 2015 cal.2013.04
9: -rwx-----. 1 16195 Jan 12 17:31 catbychar
10: -rw-----. 1 1561 Jan 12 17:31 catbychar.c
11: -rw-----. 1 311 Jan 12 17:31 catbychar.c.log
12: -rw-----. 1 0 Jan 12 17:31 catbychar.out
13: -rw-----. 1 29554 Jan 13 2015 catbychar.pdf
14: -rw-----. 1 22867 Jan 13 2015 catbychar.ps
15: -rwx-----. 1 12863 Jan 13 2015 catbyline
16: -rw-----. 1 1795 Jan 13 2015 catbyline.c
17: -rw-----. 1 310 Jan 13 2015 catbyline.c.log
18: -rw-----. 1 408 Jan 13 2015 catbyline.out
19: -rw-----. 1 28084 Jan 13 2015 catbyline.pdf
20: -rw-----. 1 21313 Jan 13 2015 catbyline.ps
21: -rwx-----. 1 12876 Jan 13 2015 getoptex
22: -rw-----. 1 1936 Jan 13 2015 getoptex.c
23: -rw-----. 1 303 Jan 13 2015 getoptex.c.log
24: -rw-----. 1 119 Jan 13 2015 getoptex.out
25: -rw-----. 1 28137 Jan 13 2015 getoptex.pdf
26: -rw-----. 1 21076 Jan 13 2015 getoptex.ps
27: -rwx-----. 1 8909 Jan 13 2015 undefvar
28: -rw-----. 1 570 Jan 13 2015 undefvar.c
29: -rw-----. 1 609 Jan 13 2015 undefvar.c.log
30: -rw-----. 1 5038 Jan 13 2015 undefvar.out
31: -rw-----. 1 33912 Jan 13 2015 undefvar.pdf
32: -rw-----. 1 26798 Jan 13 2015 undefvar.ps
33: -rwx-----. 1 18141 Jan 13 2015 wordct
34: -rw-----. 1 4732 Jan 13 2015 wordct.c
35: -rw-----. 1 289 Jan 13 2015 wordct.c.log
36: -rw-----. 1 881 Jan 13 2015 wordct.out
37: -rw-----. 1 36364 Jan 13 2015 wordct.pdf
38: -rw-----. 1 29138 Jan 13 2015 wordct.ps
```