

```
1: // $Id: showlink.c,v 1.3 2013-05-17 17:56:07-07 - - $
2:
3: //
4: // Example of how to display a symbolic link. This program is *NOT*
5: // called readlink, because one such already exists on Linux.
6: // Print a symlink or an error message. PATH_MAX is the max length
7: // of a pathname.
8: //
9: // From man -s 2 readlink:
10: //
11: //     DESCRIPTION
12: //         readlink() places the contents of the symbolic link path
13: //         in the buffer buf, which has size bufsiz. readlink()
14: //         does not append a null byte to buf. It will truncate the
15: //         contents (to a length of bufsiz characters), in case the
16: //         buffer is too small to hold all of the contents.
17: //
18: // This looks like a bizarre design bug.
19: //
20:
21: #include <errno.h>
22: #include <libgen.h>
23: #include <limits.h>
24: #include <stdio.h>
25: #include <stdlib.h>
26: #include <string.h>
27: #include <unistd.h>
28:
29: int main (int argc, char **argv) {
30:     int exit_status = EXIT_SUCCESS;
31:     for (int argi = 1; argi < argc; ++argi) {
32:         char *pathname = argv[argi];
33:         char linkname[PATH_MAX + 1];
34:         ssize_t retval = readlink (pathname, linkname, sizeof linkname);
35:         if (retval >= 0) {
36:             linkname[retval < PATH_MAX + 1 ? retval : PATH_MAX] = '\0';
37:             printf ("%s -> \"%s\"\n", pathname, linkname);
38:         } else {
39:             exit_status = EXIT_FAILURE;
40:             fflush (NULL);
41:             fprintf (stderr, "%s: %s: %s\n",
42:                     basename (argv[0]), pathname, strerror (errno));
43:             fflush (NULL);
44:         }
45:     }
46:     return exit_status;
47: }
48:
49: //TEST// ./showlink *.c *sym* >showlink.lis 2>&1
50: //TEST// mkpspdf showlink.ps showlink.c* showlink.lis
51:
```

[illegible]

10/18/13
11:45:30

\$cmps012b-wm/Labs-cmps012m/lab8c-unixprog-stat/testdata/
showlink.lis

1/1

```
1: showlink: futuretimes.c: Invalid argument
2: showlink: mkstampfiles.c: Invalid argument
3: showlink: showlink.c: Invalid argument
4: this-is-a-symlink -> "l8stat.perl"
```