```
1: // $Id: catfile.cpp,v 1.7 2015-04-23 16:34:44-07 - - $
2:
 3: //
 4: // NAME
          catfile - display files to stdout
 5: //
 6: //
 7: // SYNOPSIS
 8: //
          catfile [filename...]
9: //
10: // DESCRIPTION
11: //
          Display contents of files given on the command line.
12: //
          files are specified, display stdin. Interpret "-" as the
13: //
          name of stdin.
14: //
15:
16: #include <cstring>
17: #include <fstream>
18: #include <iostream>
19: #include <string>
20: #include <vector>
21: using namespace std;
22:
23: #include <libgen.h>
24:
25: const string cin_name = "-";
27: void catfile (istream& infile, const string& filename) {
28:
       static string colons (32, ':');
29:
       cout << colons << endl << filename << endl << colons << endl;</pre>
30:
       for(;;) {
31:
          string line;
32:
          getline (infile, line);
33:
          if (infile.eof()) break;
34:
          cout << line << endl;</pre>
35:
       }
36: }
37:
```

```
38:
39: int main (int argc, char** argv) {
       int status = 0;
41:
       string progname (basename (argv[0]));
       vector<string> filenames (&argv[1], &argv[argc]);
42:
43:
       if (filenames.size() == 0) filenames.push_back (cin_name);
44:
       for (const auto& filename: filenames) {
          if (filename == cin_name) catfile (cin, filename);
45:
46:
          else {
47:
             ifstream infile (filename);
48:
             if (infile.fail()) {
49:
                status = 1;
                cerr << progname << ": " << filename << ": "
50:
51:
                     << strerror (errno) << endl;
52:
             }else {
53:
                catfile (infile, filename);
54:
                infile.close();
55:
             }
56:
          }
57:
       }
58:
       return status;
59: }
60:
61: //TEST// date >date.out
62: //TEST// ls -bgoa date* catfile* | catfile - date.out >catfile.out
63: //TEST// rm date.out
64: //TEST// mkpspdf catfile.ps catfile.cpp* catfile.out
65:
```

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\$cmps109-wm/Assignments/asg3-listmap-templates/misc/catfile.cpp.log

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\$cmps109-wm/Assignments/asg3-listmap-templates/misc/catfile.out

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```
2: -
4: -rwx----. 1 156514 Apr 19 18:37 catfile
5: -rw----. 1 1592 Apr 19 18:37 catfile.cpp
            309 Apr 19 18:37 catfile.cpp.log
6: -rw----. 1
7: -rw----. 1
              490 Apr 19 18:36 catfile.out
8: -rw----. 1 28103 Apr 19 18:36 catfile.pdf
9: -rw----. 1 20970 Apr 19 18:36 catfile.ps
10: -rw----. 1
               29 Apr 19 18:37 date.out
12: date.out
14: Tue Apr 19 18:37:59 PDT 2016
```