

```
1: // $Id: isatty.cpp,v 1.15 2016-03-24 17:33:56-07 - - $
2:
3: //
4: // NAME
5: //     isatty - check if cin, cout, and cerr are ttys
6: //
7: // SYNOPSIS
8: //     isatty
9: //
10: // DESCRIPTION
11: //     Examines the file descriptors associated with cin, cout,
12: //     and cerr and says whether or not they are ttys. Redirection
13: //     to/from a pipe or file will make them not.
14: //
15:
16: #include <cerrno>
17: #include <cstdio>
18: #include <cstdlib>
19: #include <cstring>
20: #include <iostream>
21: #include <string>
22:
23: using namespace std;
24:
25: #include <libgen.h>
26: #include <unistd.h>
27:
28: // Declare standard file descriptors.
29: enum class FD {CIN = 0, COUT = 1, CERR = 2};
30:
31: int exit_status = EXIT_SUCCESS;
32: string exec_name = "";
33:
34: void report (string filename, FD filedес) {
35:     errno = 0;
36:     bool istty = isatty (int (filedes)) != 0;
37:     if (errno != 0) {
38:         cerr << exec_name << ": " << filename << ": fd " << int (filedes)
39:             << ": " << strerror (errno) << endl;
40:         exit_status = EXIT_FAILURE;
41:     }else {
42:         char* name = ttyname (int (filedes));
43:         cout << filename << (istty ? " is" : " is not") << " a tty";
44:         if (name != nullptr) cout << " named " << name;
45:         cout << endl;
46:     }
47: }
48:
49: int main (int argc, char **argv) {
50:     (void) argc; // SUPPRESS: warning: unused parameter 'argc'
51:     exec_name = basename (argv[0]);
52:     report ("cin", FD::CIN);
53:     report ("cout", FD::COUT);
54:     report ("cerr", FD::CERR);
55:     return exit_status;
56: }
57:
58: //TEST// ./isatty 1>isatty.out 2>isatty.err
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```
59: //TEST// catnv isatty.cpp.log isatty.out isatty.err >isatty.lis
60: //TEST// rm -v isatty.cpp.log isatty.out isatty.err
61: //TEST// mkpspdf isatty.ps isatty.cpp* isatty.lis
62:
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1: ::::::::::::::::::::::::::::::
2: isatty.cpp.log
3: ::::::::::::::::::::::::::::::
4:      1  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: starting isatty.cpp
5:      2  isatty.cpp:
6:      3      $Id: isatty.cpp,v 1.15 2016-03-24 17:33:56-07 - - $
7:      4  g++ -g -O0 -Wall -Wextra -rdynamic -std=gnu++14 isatty.cpp
8:      5      -o isatty -lglut -lGLU -lGL -lX11 -lrt -lm
9:      6  rm -f isatty.o
10:     7  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: finished isatty.cpp
11: ::::::::::::::::::::::::::::::
12: isatty.out
13: ::::::::::::::::::::::::::::::
14: ::::::::::::::::::::::::::::::
15: isatty.err
16: ::::::::::::::::::::::::::::::
17:      1  isatty: cin: fd 0: Inappropriate ioctl for device
18:      2  isatty: cout: fd 1: Invalid argument
19:      3  isatty: cerr: fd 2: Invalid argument
```